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STRUCTURE FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

DICTIONARY FILE UPDATES: 4 SEP 2008 HIGHEST RN 1046534-52-4

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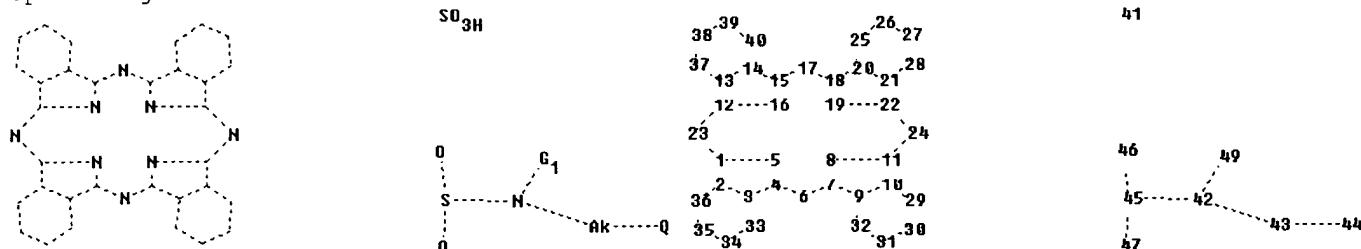
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<http://www.cas.org/support/stngen/stndoc/properties.html>

Uploading L4.str



chain nodes :

41 42 43 45 46 47 49

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

ring/chain nodes :

44

chain bonds :

42-45 42-43 42-49 43-44 45-46 45-47

ring bonds :

1-2 1-5 1-23 2-3 2-36 3-4 3-33 4-5 4-6 6-7 7-8 7-9 8-11 9-10 9-32
10-11 10-29 11-24 12-13 12-16 12-23 13-14 13-37 14-15 14-40 15-16 15-17
17-18 18-19 18-20
19-22 20-21 20-25 21-22 21-28 22-24 25-26 26-27 27-28 29-30 30-31 31-32
33-34 34-35
35-36 37-38 38-39 39-40

exact/norm bonds :

1-2 1-5 1-23 2-3 2-36 3-4 3-33 4-5 4-6 6-7 7-8 7-9 8-11 9-10 9-32
10-11 10-29 11-24 12-13 12-16 12-23 13-14 13-37 14-15 14-40 15-16 15-17
17-18 18-19 18-20
19-22 20-21 20-25 21-22 21-28 22-24 25-26 26-27 27-28 29-30 30-31 31-32
33-34 34-35
35-36 37-38 38-39 39-40 42-45 42-43 42-49 43-44 45-46 45-47

G1:H,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

10/564959

20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom
31:Atom 32:Atom
33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:CLASS
42:CLASS 43:CLASS
44:CLASS 45:CLASS 46:CLASS 47:CLASS 49:CLASS

=> file zcaplus
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FILE COVERS 1907 - 5 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 4 Sep 2008 (20080904/ED)

ZCaplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'ZCAPLUS' FILE

=> d stat que L99
L4 STR
Structure diagram not available for display

Structure attributes must be viewed using STN Express query preparation.

L23 1476 SEA FILE=REGISTRY SSS FUL L4
L97 2913 SEA FILE=ZCAPLUS ABB=ON PLU=ON PATEL P?/AU
L99 1 SEA FILE=ZCAPLUS ABB=ON PLU=ON L23 AND L97

=> d stat que L102
L7 18 SEA FILE=REGISTRY ABB=ON PLU=ON (10025-87-3/BI OR 110-91-8/BI
OR 11098-84-3/BI OR 111-48-8/BI OR 121-47-1/BI OR 147-14-8/BI
OR 4439-20-7/BI OR 53507-01-0/BI OR 57-13-6/BI OR 574-93-6/BI
OR 616-45-5/BI OR 6674-22-2/BI OR 7447-39-4/BI OR 7647-14-5/BI
OR 7664-41-7/BI OR 7790-94-5/BI OR 870-24-6/BI OR 9014-85-1/BI)

10/564959

L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND NRRS>5
L9 2 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND CU/ELS
L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON L8 AND L9
L97 2913 SEA FILE=ZCAPLUS ABB=ON PLU=ON PATEL P?/AU
L102 16 SEA FILE=ZCAPLUS ABB=ON PLU=ON L10 AND L97

=> s L99 or L102
L106 17 L99 OR L102

=> file wpix
FILE 'WPIX' ENTERED AT 13:22:31 ON 05 SEP 2008
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FILE LAST UPDATED: 3 SEP 2008 <20080903/UP>
MOST RECENT UPDATE: 200856 <200856/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
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>>> IPC Reform backfile reclassifications have been loaded to the end of June 2008. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC, 20070601/UPIC, 20071001/UPIC, 20071130/UPIC, 20080401/UPIC and 20080701/UPIC.
ECLA reclassifications to June and US national classifications to the end of April 2008 have also been loaded. Update dates 20080401 and 20080701/UPEC and /UPNC have been assigned to these. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://scientific.thomsonreuters.com/support/patents/coverage/latestupdates/>

EXPLORE DERWENT WORLD PATENTS INDEX IN STN ANAVIST, VERSION 2.0:
http://www.stn-international.com/archive/presentations/DWPPIAnaVist2_0710.pdf

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

'BIX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d stat que L105
L103 511 SEA FILE=WPIX ABB=ON PLU=ON PATEL P?/AU
L104 18272 SEA FILE=WPIX ABB=ON PLU=ON PHTHALOCYAN?/BIX
L105 26 SEA FILE=WPIX ABB=ON PLU=ON L103 AND L104

=> dup rem L106 L105
FILE 'ZCAPLUS' ENTERED AT 13:22:42 ON 05 SEP 2008
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FILE 'WPIX' ENTERED AT 13:22:42 ON 05 SEP 2008
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PROCESSING COMPLETED FOR L106
PROCESSING COMPLETED FOR L105
L107 27 DUP REM L106 L105 (16 DUPLICATES REMOVED)

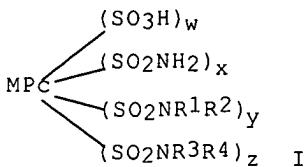
ANSWERS '1-17' FROM FILE ZCPLUS
 ANSWERS '18-27' FROM FILE WPIX

=> d ibib abs hitind hitstr L107 1-17; d iall hit L107 18-27

L107 ANSWER 1 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 2006:1147667 ZCPLUS Full-text
 DOCUMENT NUMBER: 145:473097
 TITLE: Phthalocyanine derivatives and their applications for
 ink-jet printing
 INVENTOR(S): Patel, Prakash
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: PCT Int. Appl., 25pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006114569	A2	20061102	WO 2006-GB1330	20060411
WO 2006114569	A3	20061221		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1877494	A2	20080116	EP 2006-726730	20060411
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
IN 2007DN07881	A	20071123	IN 2007-DN7881	20071012
MX 200712833	A	20071120	MX 2007-12833	20071015
CN 101163751	A	20080416	CN 2006-80013435	20071022
KR 2008004627	A	20080109	KR 2007-727246	20071122
PRIORITY APPLN. INFO.:			GB 2005-8234	A 20050423
			GB 2005-8238	A 20050423
			WO 2006-GB1330	W 20060411

OTHER SOURCE(S): MARPAT 145:473097
 GI



AB A mixture of compds. I and salts thereof, wherein M = 2H, Si, a metal, an oxymetal group, a hydroxymetal group or a halometal group, P_c = phthalocyanine nucleus, R₁ = H or C₁₋₄ alkyl, R₂ = alkyl or heterocyclyl, R₃ = H or C₁₋₄ alkyl, R₄ = hydrocarbyl, w, x, y, z = 0.1 to 3.7, and y ≠ z, can be used in ink-jet printing when mixed with liquid medium. Ink-jet printing processes, printed material, and ink-jet printer cartridges using the above compns. are also provided. Thus, potassium 4-sulfophthalic acid were cyclized in the presence of CuCl₂, ammonium molybdate, 1,8-diazabicyclo[5.4.0]undec-7-ene, chlorinated with POCl₃, and reacted with taurine, homo-taurine, and concentrated ammonia to receive a phthalocyanine derivative

CC 42-6 (Coatings, Inks, and Related Products)

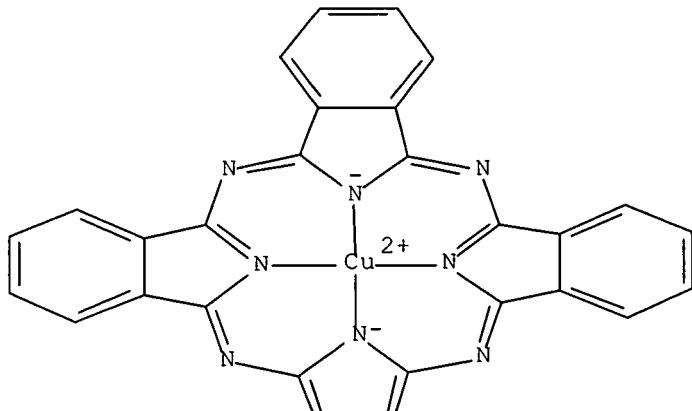
IT Section cross-reference(s): 41
147-14-8DP, Copper phthalocyanine, sulfonamide/sulfonate derivs.
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (phthalocyanine derivs. for ink-jet printing and cartridges)

IT **147-14-8DP**, Copper phthalocyanine, sulfonamide/sulfonate derivs.
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (phthalocyanine derivs. for ink-jet printing and cartridges)

RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-) -κN₂₉,κN₃₀,κN₃₁,.ka ppa.N₃₂] -, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L107 ANSWER 2 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 2
 ACCESSION NUMBER: 2006:471790 ZCPLUS Full-text
 DOCUMENT NUMBER: 144:490400
 TITLE: Phthalocyanine compounds and their use in ink-jet
 printing
 INVENTOR(S): Mayall, John; Patel, Prakash
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: PCT Int. Appl., 21 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006051258	A1	20060518	WO 2005-GB4054	20051021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1812517	A1	20070801	EP 2005-794756	20051021
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008519880	T	20080612	JP 2007-540702	20051021
US 20080110369	A1	20080515	US 2007-666944	20070430
PRIORITY APPLN. INFO.:			GB 2004-25015	A 20041111
			WO 2005-GB4054	W 20051021

OTHER SOURCE(S): MARPAT 144:490400
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A compound of formula: (I) in the free acid or salt form: wherein: M is 2H, Si, a metal, an oxymetal group, a hydroxymetal group or a halometal group; Pc represents a phthalocyanine nucleus of formula: (II) each R1 and R2 independently is H, optionally substituted alkyl or optionally substituted aryl; each R3independently is optionally substituted alkyl or optionally substituted aryl; each n independently is, 1 or 2; x is 0 to 2; y is 0.1 to 2.5; z is 0.1 to 2.5; and the sum (x + y + z) is 2.2 to 4. Also compns., ink jet printer inks, cartridges and processes and printed materials.
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 41, 78
 IT 887115-38-0P 887115-39-1P 887115-40-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (production of phthalocyanine compds. for ink-jet printing inks)

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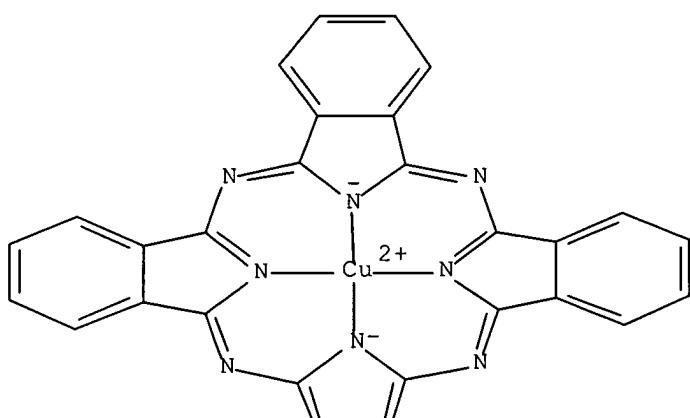
IT 887115-38-0P 887115-39-1P 887115-40-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(production of phthalocyanine compds. for ink-jet printing inks)

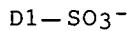
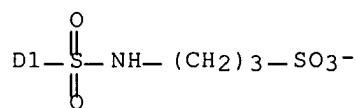
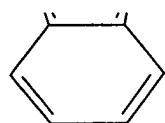
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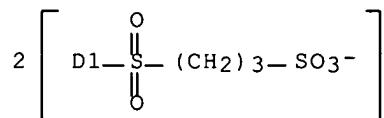
CN Cuprate(4-), [C-[(3-sulfopropyl)amino]sulfonyl]-C,C-bis[(3-sulfopropyl)sulfonyl]-29H,31H-phthalocyanine-2-sulfonato(6-) -
κN29,κN30,κN31,κN32]-, tetrahydrogen (9CI) (CA
INDEX NAME)

PAGE 1-A



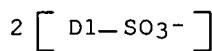
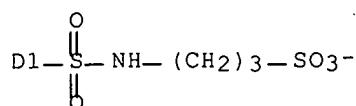
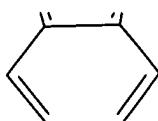
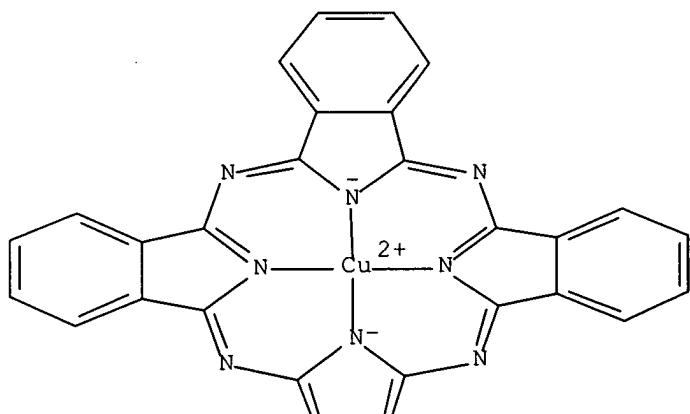
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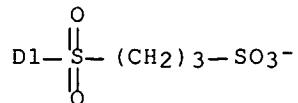


●4 H⁺

RN 887115-39-1 ZCPLUS
 CN Cuprate(4-), [C-[[(3-sulfopropyl)amino]sulfonyl]-C-[(3-sulfopropyl)sulfonyl]-29H,31H-phthalocyanine-C,2-disulfonato(6-)-κN29,κN30,κN31,κN32]-, tetrahydrogen (9CI) (CA INDEX NAME)

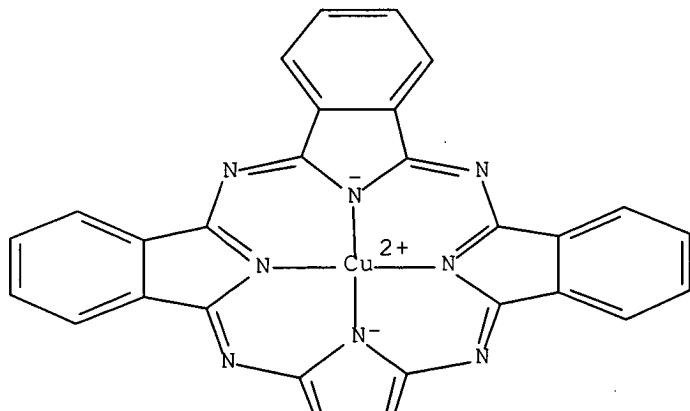


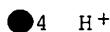
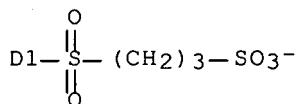
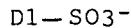
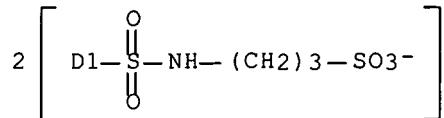
PAGE 3-A

●4 H⁺

RN 887115-40-4 ZCPLUS
CN Cuprate(4-), [C,C-bis[(3-sulfopropyl)amino]sulfonyl]-C-bis[(3-sulfopropyl)sulfonyl]-29H,31H-phthalocyanine-2-sulfonato(6)-κN29,κN30,κN31,κN32]-, tetrahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A

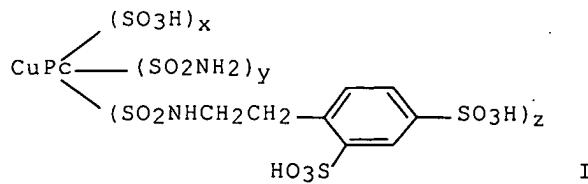




REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 3 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 3
 ACCESSION NUMBER: 2006:722983 ZCPLUS Full-text
 DOCUMENT NUMBER: 145:169152
 TITLE: Phthalocyanines and their use in ink-jet inks
 INVENTOR(S): Patel, Prakash
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: Brit. UK Pat. Appl., 21 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2422376	A	20060726	GB 2005-26170	20051222
GB 2422376	B	20070131		
US 20060162615	A1	20060727	US 2006-326456	20060106
PRIORITY APPLN. INFO.:			GB 2005-1275	A 20050121
OTHER SOURCE(S):	MARPAT 145:169152			
GI				



AB A composition comprises (a) a major dye component which is a mixture of phthalocyanine dyes of Formula I and salts thereof, wherein Pc represents a phthalocyanine nucleus; x is 0.1 to 3.8; y is 0.1 to 3.8; z is 0.1 to 3.8; the sum of x + y + z is 3 to 4; and the substituents, represented by x, y and z, are attached only to a β -position on the phthalocyanine ring; and (b) a liquid medium. Also ink-jet inks and cartridges comprising these compns., printing processes, printed material and dye mixts. consisting only of component (a) are disclosed.

CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41

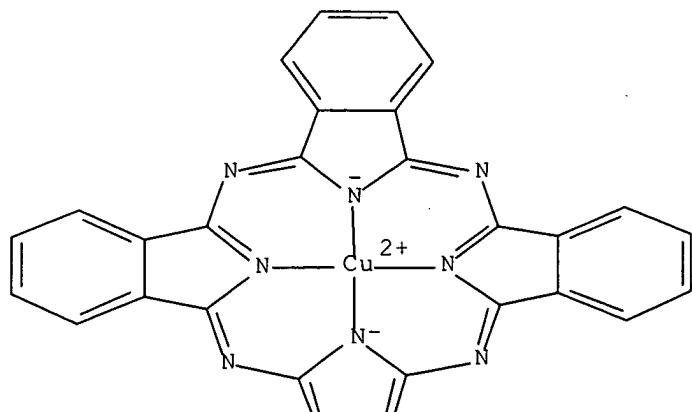
IT 147-14-8DP, sulfonic and sulfonamides derivative
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phthalocyanines and their use in ink-jet inks)

IT 147-14-8DP, sulfonic and sulfonamides derivative
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phthalocyanines and their use in ink-jet inks)

RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-
 κ N29, κ N30, κ N31,.ka
ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A





REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 4 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 4
 ACCESSION NUMBER: 2005:696980 ZCPLUS Full-text
 DOCUMENT NUMBER: 143:155088
 TITLE: Process for the fractionation of mixtures of phthalocyanine dyes and their use in ink jet inks
 INVENTOR(S): Watson, Graham Michael; Johnson, Jill Louise; Patel, Prakash; Fern, William Albert
 PATENT ASSIGNEE(S): Avecia Inkjet Limited, UK
 SOURCE: PCT Int. Appl., 21 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005071025	A1	20050804	WO 2004-GB4950	20041124
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1711565	A1	20061018	EP 2004-798656	20041124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007522279	T	20070809	JP 2006-550268	20041124
PRIORITY APPLN. INFO.:			GB 2004-1540	A 20040123
			WO 2004-GB4950	W 20041124

OTHER SOURCE(S): MARPAT 143:155088

AB A process for forming an image on a substrate comprises applying an ink thereto by means of an ink-jet printer wherein the ink comprises a liquid medium and a phthalocyanine dye fraction obtainable by the fractionation of a solution and/or suspension of a mixture of phthalocyanine dyes $MPC(SO_3H)_x(SO_2NR_1R_2)(SO_2NR_3R_4)$, by cross-flow filtration, wherein: M is 2H, copper or nickel; Pc represents a phthalocyanine nucleus; R1 and R3 independently are H or optionally substituted C1-4 alkyl; R2 and R4 independently are H or optionally substituted hydrocarbyl; or R1 and R2, and, R3 and R4, independently, together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring

• system; x is 0 to 3.9; y is 0 to 3.9; z is 0.1 to 4; and the sum of (x+y+z) is 2.4 to 4.5.

IC ICM C09D011-00
ICS C09B067-00; C09B047-26

CC 42-12 (Coatings, Inks, and Related Products)

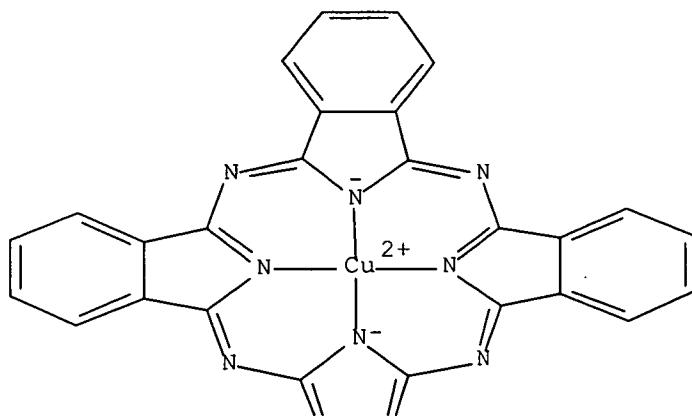
IT 147-14-8D, Copper phthalocyanine, sulfo sulfamide hydroxyethylsulfamide derivs. 12222-04-7D, C.I. Direct Blue 199, sulfo sulfamide derivs.
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(process for the fractionation of mixts. of phthalocyanine dyes and their use in ink jet inks)

IT 147-14-8D, Copper phthalocyanine, sulfo sulfamide hydroxyethylsulfamide derivs.
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(process for the fractionation of mixts. of phthalocyanine dyes and their use in ink jet inks)

RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT:

4

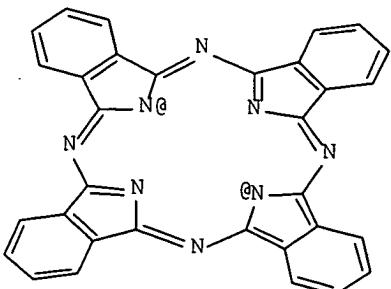
THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 5 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 5
 ACCESSION NUMBER: 2005:141172 ZCPLUS Full-text
 DOCUMENT NUMBER: 142:221383
 TITLE: Copper phthalocyanine dye-containing ink-jet ink and its applications in ink-jet printers
 INVENTOR(S): Patel, Prakash
 PATENT ASSIGNEE(S): Avecia Limited, UK
 SOURCE: PCT Int. Appl., 20 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014732	A1	20050217	WO 2004-GB2864	20040702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1654332	A1	20060510	EP 2004-743210	20040702
EP 1654332	B1	20071121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2006528257	T	20061214	JP 2006-520877	20040702
US 20060201385	A1	20060914	US 2006-564960	20060118
US 7326287	B2	20080205		
PRIORITY APPLN. INFO.:			GB 2003-16856	A 20030718
			WO 2004-GB2864	W 20040702

OTHER SOURCE(S): MARPAT 142:221383

GI



I

AB Title ink is composed of (a) a major dye component containing copper phthalocyanine dyes: CuPc β -(SO₃M)_x β -(SO₂NH₂)_y, wherein P_c = (I), M = cation selected from Na⁺, Li⁺, NH₄⁺, and volatile amines, x, y = 0.5 - 3.5, x + y = 4, and (b) a liquid medium comprising water or organic solvents. The copper phthalocyanine dyes with the sulfo and sulfonamide substituents attaching to the β -position of the phthalocyanine ring are prepared by cyclization of 4-sulfophthalic acid to phthalocyanine β -tetrasulfonic acid in the presence of a nitrogen source, copper salts, and a base, followed by chlorination and amination. Ink-jet printing processes, ink-jet printed images, ink-jet cartridges, and ink-jet printers using the above inks are also provided. Thus, potassium 4-sulfo-phthalic acid, urea, CuCl₂, ammonium molybdate, and 1,8-diazabicyclo[5.4.0]undec-7-ene were reacted to receive a sulfonated phthalocyanine, which was further chlorinized with phosphorous oxychloride and chlorosulfonic acid and aminated with ammonium chloride to obtain a dye with x = 2.3 and y = 1.6.

IC ICM C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41

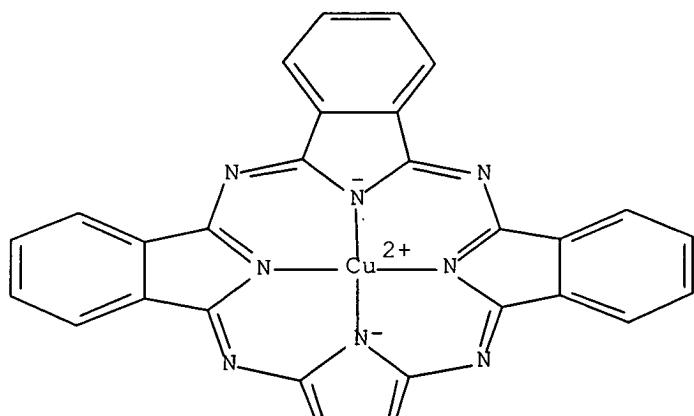
IT 147-14-8DP, sulfo/sulfonamide derivs.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of copper phthalocyanine dye-containing ink-jet inks)

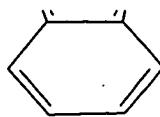
IT 147-14-8DP, sulfo/sulfonamide derivs.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of copper phthalocyanine dye-containing ink-jet inks)

RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-
 κ N29, κ N30, κ N31,.ka-
ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A



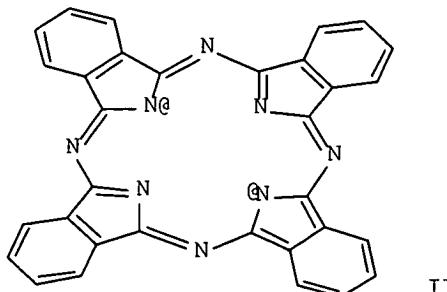
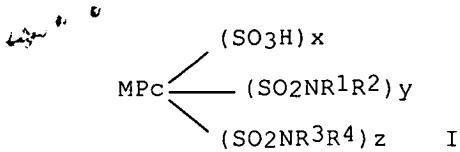


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 6 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 6
 ACCESSION NUMBER: 2005:141168 ZCPLUS Full-text
 DOCUMENT NUMBER: 142:221176
 TITLE: Phthalocyanine dyes and its applications for ink-jet inks and ink-jet printer cartridges
 INVENTOR(S): Patel, Prakash
 PATENT ASSIGNEE(S): Avecia Limited, UK
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014726	A1	20050217	WO 2004-GB2884	20040702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
GB 2418670	A	20060405	GB 2006-552	20040702
GB 2418670	B	20070627		
US 20060180051	A1	20060817	US 2006-564958	20060118
US 7189283	B2	20070313		
PRIORITY APPLN. INFO.:			GB 2003-16855	A 20030718
			GB 2003-17411	A 20030725
			WO 2004-GB2884	W 20040702

OTHER SOURCE(S) : MARPAT 142:221176
 GI



AB Provided is a mixture of phthalocyanine dyes (I), wherein : M = Cu or Ni, Pc = (II), R1-3 = H, C1-4 alkyl, R4 = C1-4 hydroxyalkyl, x, y, z = 0.1-3.8, x + y + z = 4, and the substituents, represented by x, y and z, are attached only to the β -position of the phthalocyanine ring. A composition containing the above dyes and a liquid medium comprising water and organic solvent can be used as inks for ink-jet printing, and the printing process, printed images, and ink-jet printer cartridges are also provided. Thus, sulfonated phthalocyanine prepared from potassium 4-sulfophthalate, urea, CuCl₂, ammonium molybdate, 1,8-diazabicyclo[5.4.0]undec-7-ene, and NaCl was chlorinated and amidized with phosphorous oxychloride, chlorosulfonic acid, ethanol and ammonia to obtain a phthalocyanine dye that can be used to prepare ink-jet printing inks.

IC ICM C09B047-26
ICS C09B047-06; C09D011-00

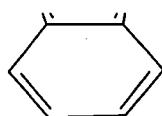
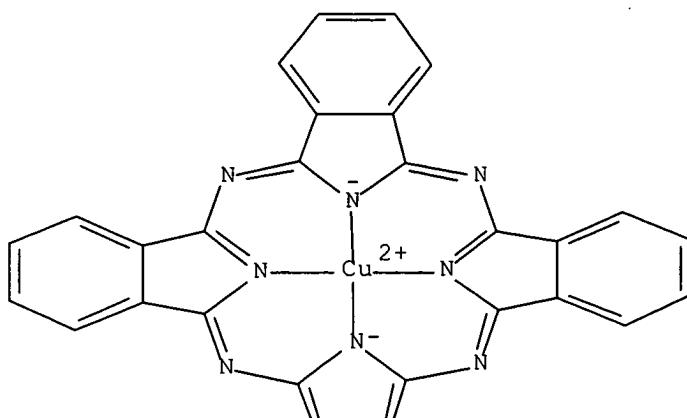
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42, 74

IT 147-14-8P, Copper phthalocyanine
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfonated derivs.; preparation of phthalocyanine dyes for ink-jet inks and ink-jet printer cartridges)

IT 147-14-8P, Copper phthalocyanine
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfonated derivs.; preparation of phthalocyanine dyes for ink-jet inks and ink-jet printer cartridges)

RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)–κN29,κN30,κN31,.ka ppa.N32]–, (SP-4-1)– (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 7 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 2005:141167 ZCPLUS Full-text

DOCUMENT NUMBER: 142:221175

TITLE: Phthalocyanine dye composition as ink-jet inks and ink-jet printer cartridges and printing process

INVENTOR(S): Patel, Prakash

PATENT ASSIGNEE(S): Avecia Limited, UK

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

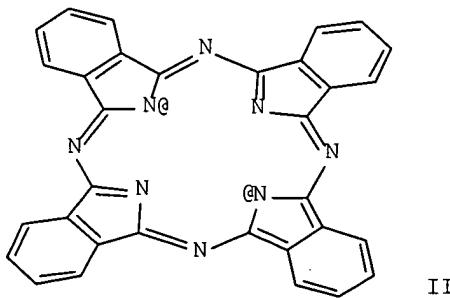
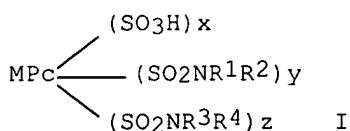
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014725	A1	20050217	WO 2004-GB2855	20040702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG

AU 2004263708	A1	20050217	AU 2004-263708	20040702
CA 2532680	A1	20050217	CA 2004-2532680	20040702
GB 2417249	A	20060222	GB 2005-21448	20040702
GB 2417249	B	20071121		
EP 1654329	A1	20060510	EP 2004-743201	20040702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004012764	A	20060926	BR 2004-12764	20040702
CN 1852951	A	20061025	CN 2004-80026609	20040702
JP 2006528256	T	20061214	JP 2006-520876	20040702
MX 2006PA00672	A	20060330	MX 2006-PA672	20060117
US 20060201387	A1	20060914	US 2006-564935	20060118
US 7182806	B2	20070227		
IN 2006DN00365	A	20070817	IN 2006-DN365	20060120
GB 2003-16854 A 20030718				
GB 2003-17413 A 20030725				
WO 2004-GB2855 W 20040702				

PRIORITY APPLN. INFO.: CASREACT 142:221175; MARPAT 142:221175

GI



AB Provided is a mixture of phthalocyanine dyes (I), wherein : M = Cu or Ni, Pc = (II), R1-2 = H, C1-4 alkyl, R3 = H or hydrocarbyl, R4 = hydrocarbyl, x, y, z = 0.1-3.8, x + y + z = 4, and the substituents, represented by x, y and z, are attached only to the β -position of the phthalocyanine ring. A composition containing the above dyes and a liquid medium comprising water and organic solvent can be used as inks for ink-jet printing, and the printing process, printed images, and ink-jet printer cartridges are also provided. Thus, sulfonated phthalocyanine prepared from potassium 4-sulfophthalate, urea, CuCl₂, ammonium molybdate, 1,8-diazabicyclo[5.4.0]undec-7-ene, and NaCl was chlorinated and amidized with phosphorous oxychloride, chlorosulfonic acid,

10/564959

metanilic acid, and ammonia to obtain a phthalocyanine dye that can be used to prepare ink-jet printing inks.

IC ICM C09B047-06
ICS C09B047-26; C09B067-22; C09D011-00

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42, 74

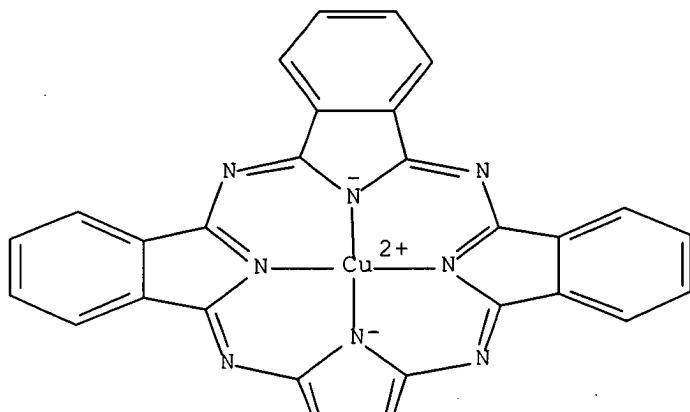
IT 147-14-8DP, Copper phthalocyanine, sulfonated derivs.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of phthalocyanine dyes for ink-jet inks and ink-jet printer cartridges)

IT 147-14-8DP, Copper phthalocyanine, sulfonated derivs.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of phthalocyanine dyes for ink-jet inks and ink-jet printer cartridges)

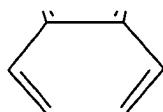
RN 147-14-8 ZCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)–κN29,κN30,κN31,.ka ppa.N32]–, (SP-4-1)– (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/564959

L107 ANSWER 8 OF 27 ZCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2005:141166 ZCPLUS Full-text
DOCUMENT NUMBER: 142:221174
TITLE: Phthalocyanine dyes and its applications for ink-jet
inks and ink-jet printer cartridges
INVENTOR(S): Patel, Prakash
PATENT ASSIGNEE(S): Avecia Limited, UK
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014724	A1	20050217	WO 2004-GB2854	20040702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1654328	A1	20060510	EP 2004-743200	20040702
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CN 1852950	A	20061025	CN 2004-80026607	20040702
JP 2006528710	T	20061221	JP 2006-520875	20040702
MX 2006PA00671	A	20060330	MX 2006-PA671	20060117
US 20060201384	A1	20060914	US 2006-564959	20060118
IN 2006DN00362	A	20070817	IN 2006-DN362 GB 2003-16852 GB 2003-17414	20060120 A 20030718 A 20030725
PRIORITY APPLN. INFO.:			WO 2004-GB2854	W 20040702

OTHER SOURCE(S): MARPAT 142:221174

GI